

division is presented. The enamel-organs of the molars are therefore here also in connexion with an epithelial cord, which is prolonged laterally on the inside of the dental rudiments; we have in this case also the representation of the origin of teeth of the first dentition before us, although rudiments of the second dentition are not distinctly formed. The epithelial cord terminates further back in a knobbed swelling, which is perhaps the earliest rudiment of the fourth molar.

Although the facts may yet be considerably amplified by further investigations, nevertheless I consider that I may already maintain that embryology furnishes no support for attributing the first two so-called molars of the upper jaw and the first three similar teeth of the lower jaw to another dentition than that to which are attributed the rest of the teeth which lie in front of them. There are no molars at all, but premolars. The dentition of *Didelphys* which cuts the gum and is permanent therefore belongs (with the exception of the last molars, which appear at a late stage of development) to the first series, or the milk-dentition.

XLV.—*Descriptions of new Genera and Species of Pyraliæ contained in the British-Museum Collection.* By W. WARREN, M.A., F.E.S.

[Continued from p. 179.]

*MICRACTIS*, gen. nov.

A subdivision of *Botys*. Characterized by the presence of a small raised linear dash close to the base immediately beneath the interno-median vein of the fore wing of the male. The females are always larger and generally paler than the males.

Type *M. nubialis*, Hüb. (*Pyralis*).

*Micractis sanguinealis*, sp. n.

Fore wing deep yellow, more or less thickly suffused with dull red, the costa throughout deeper; lines themselves reddish; first curved outwardly, preceded by a yellowish space, the basal area up to it suffusedly reddish; central space between the two lines thickly suffused with red, the two stigmata deeper; second line, slightly serrated, forms a distinct

outward curve in the middle, and is followed by a broadish yellow fascia, the outer edge of which is likewise serrated; beyond this the whole hind margin is densely reddish fuscous; fringe dark cinereous. Hind wing yellow, with greyish-fuscous margin and an indistinctly expressed central shade. Head, palpi, and thorax reddish; legs white; abdomen yellow. Underside dull yellowish grey.

Expanse of wings 24 millim.

One male from Japan.

#### OPSIBOTYS, Warr.

*Opsibotys*, Warr. Ann. & Mag. Nat. Hist. 1890 (ii.), p. 474.

#### *Opsibotys latipennis*, sp. n.

Fore wings pale straw-colour, with the markings yellowish, viz. the costa, the two stigmata, and the two lines, the first of which is very indistinct and the second denticulated; a faint undulating submarginal line. Hind wings with a central spot, a curved central fascia, and a faint submarginal one yellowish. In the male the yellowish parts are tinted also with grey. Thorax and abdomen straw-colour; head and collar yellowish. Underside dirty ochreous, with all the markings very faint.

Expanse of wings 30 millim.

One female, one male, from Japan.

The species reminds one of a *Micraetis*, but the male is without the characteristic marking of that genus. Both wings are rather broad.

#### *Opsibotys ocellalis*, sp. n.

Fore wing fuscous-brown, elongate; first line invisible, second strongly serrated, the serrations thrown up by a slightly paler shade beyond it; a conspicuous pale yellowish-white spot at end of cell; fringes concolorous. Hind wing with second line repeated; fringes with pale apices.

Expanse of wings 36 millim.

One male from Japan.

Related to the American species *mustelinalis* and *fumiferalis*.

#### SERICOPLAGA, gen. nov.

Like *Opsibotys* in structure, but distinguished by the shape of the fore wings, of which the apex is produced and pointed

and the hind margin concave in the upper half and bulging out in the lower; the scaling is smooth and glossy and the fringes white. Superficially it bears a resemblance to the East-Indian genus *Leucocraspeda*, Warr.

Type *S. externalis*, Warr.

*Sericoplaga externalis*, sp. n.

Fore wings reddish ochreous, glossy, dusted with fuscous, the costa greyish at the base; lines dark grey, first line denticulated, oblique, approaching second on the inner margin, second line also denticulated, starting from the costa at two thirds, forming a large curve for the first half of the wing and running deep inwards along the first median nervule to below the reniform stigma, and thence obliquely to inner margin; a small dark spot in the cell beyond first line and a lunular mark at end of cell; fringe with basal third dark grey, apical two thirds silvery white. Hind wings like fore wings, with only the second line represented. Head, thorax, and abdomen concolorous with fore wings. Underside whitish, with only the outer line and base of fringes dark brownish.

Expanse of wings 26 millim.

One female from Texas, in Zeller Collection.

ANTHOCRYPTA, gen. nov.

Related to *Opsibotys*. Fore wings elongate; costa slightly sinuous, strongly convex before apex, which is prominent but not acute, as in *Sericoplaga*; hind margin sinuous, but much less distinctly so than in *Sericoplaga*, the subapical sinus and lower convexity being much fainter; scaling fine and glossy. Labial palpi *not rostriform*, but shortly porrected horizontally, the last joint quite small and bluntly rounded; maxillary palpi very fine; tongue rather large; abdomen lengthened, extending beyond hind wings; antennæ simple in both sexes, in the male only showing faint traces of pubescence. On the under surface of the male hind wings is a brown patch, as if burnt, embracing the median and submedian nervules.

Type *A. subinquinalis*, Guen. (*Ebulea*), D. & P. p. 362.

GLAUCONŒ, gen. nov.

Fore wings elongate; costa convex only before apex, which is distinct, but not acute; hind margin oblique. Hind wings well rounded. Labial palpi triangular, rather drooping, much

shorter than in *Opsibotys*; antennæ long, two thirds the length of fore wing, filiform in both sexes, and very finely and shortly pubescent in male; abdomen long, in male with a distinct, generally darker, anal tuft; scaling dull, slightly iridescent; markings very indistinct or obsolete.

Type *G. deductalis*, Wlk. (*Botys*), xviii. p. 659.

*Glauconoë subflavalis*, sp. n.

Fore wings dull yellowish ochreous, towards the inner and hind margins almost wholly suffused with dull leaden-grey; the basal area, the costa broadly between the lines, and shortly beyond the second line remaining yellow; first line simply curved, second forming an angular prominence outwards in the middle; the intermediate space darker grey; a dark grey lunule at end of cell. Hind wings grey, slightly mixed with yellowish, with a faintly darker, paler edged, central fascia. Head, thorax, and abdomen yellow. Underside pale ochreous, with only the cell-spots and outer line a little darker.

Expanse of wings 40 millim.

One female from Madagascar.

*G. ceadesalis*, Wlk. (*Botys*), from Ashanti, of which the type is in the British Museum Collection, as well as another example from Kilimanjaro, may be the male of *subflavalis*; but in them there is no trace of yellow scaling.

*Glauconoë fuscescens*, sp. n.

Fore wings dull grey, with no markings whatever except a dark lunule at end of cell and a small spot before it. Hind wings wholly dull grey. Underside paler, whitish.

Expanse of wings 36 millim.

One male from Sumatra.

NOTASPIS, gen. nov.

Resembles *Ostrinis*, Hüb., in shape of wings, especially in the strongly convex costa of the fore wing, but of stouter build; distinguished by the great length of the labial palpi, which are quite three times as long as the head; the third joint as long as the second, which projects beyond it at its base both above and below; maxillary palpi erect, triangular, cut straight off above; antennæ in male finely but distinctly ciliated; last segment of thorax with two snow-white lateral spots; second segment of abdomen with a large central one.

Fore wing with the exterior transverse line closely approximating to the hind margin. Hind wing without markings.

Type *N. tranquillalis* (*Botys tranquillalis*, Led. W. E. M. vii. pp. 371, 466, pl. ix. fig. 16).

In the male the whole of the central field between the two transverse lines is filled up with red-brown; in the female of Lederer's figure this is only partially the case.

#### TERASTIODES, gen. nov.

Distinguished from *Notaspis*, Warr., by the shape of the fore wings, which are much narrower, with a nearly straight costa; hind margin for the upper two thirds vertical, then suddenly oblique to the anal angle, so forming a decided elbow; inner margin a little concave before the anal angle; labial palpi only as long as the head, triangular, with the terminal joint short, hardly visible; maxillary short, erect; antennæ of male pubescent only; last segment of thorax with two silvery lateral spots of raised scales; second segment of abdomen with one large central one; penultimate segment with a silvery white belt.

Type *T. ochracealis* (*Terastia*), Wlk. xxxiv. p. 1308.

The similarity in ornamentation of the abdomen which occurs in two so widely separated species as *Notaspis tranquillalis* and *T. ochracealis* is noticeable; in other respects they do not appear to be in any way related.

#### STENOCHORA, gen. nov.

Fore wings elongate, in female with the apex somewhat produced and the hind margin sinuous, being slightly concave just below the apex and above the anal angle, in the male with the hind margin very oblique and simple, the apex being bluntly rounded. Hind wings rounded. Both wings broader in female than male. Palpi porrect, rostriform as in *Opsibotys*; antennæ moniliform in both sexes, slightly pubescent in male; abdomen long, in male with a distinct anal tuft.

Type *S. lancinalis*, Guen. (*Rhodaria*), D. & P. p. 160 (*B. capeditalis*, Led. W. E. M. vii. pp. 372, 466, pl. ix. fig. 15).

#### AGLAOPS, gen. nov.

Fore wings with costa nearly straight, convex before apex, which is distinct; hind margin obliquely curved. Hind wings rounded. Palpi porrect, rostriform, comparatively large; antennæ simple in both sexes, very finely pubescent in

male; middle tibia of male enormously enlarged and flattened; abdomen of female short, stout, of male elongated, slender; scaling fine, pulverulent; markings two lines—the first vertical, the second sinuous, denticulate—and two stigmata. Hind wings without markings.

Type *A. furnacalis* (*Mecyna*), Meyr. Tr. E. S. 1886, p. 264.

#### HYALORISTA, gen. nov.

Fore wings elongate, three times as long as wide; costa straight; hind margin oblique. Hind wings likewise somewhat elongate. Palpi rostriform, long for the size of the species; forehead slightly protuberant; ocelli present; antennæ simple, slightly pubescent in male; scaling fine and smooth.

Type *H. tenuolalis* (*Rhodaria*), Guen. D. & P. p. 172.

A natural group of insects hitherto comprehended within the elastic limits of *Botys*; of comparatively small size and delicate structure, with the usual markings almost wholly absent; both wings showing a dark marginal suffusion; the hind wings nearly transparent.

#### *Hyalorista imitans*, sp. n.

Fore wings yellow, suffused with darker towards the costa; an oblique, broadish, purplish-grey band near the base, and another submarginal; the outer edge of the former and the inner edge of the latter rather irregular; an indistinct dark ocelloid spot at end of cell; traces of an exterior line appear on the costa and in the disk. Hind wings whitish yellow, yellow only along the inner margin, with an indistinct darker submarginal band and a distinct purplish-grey blotch on the inner margin. Head, thorax, and abdomen rather deep yellow. Underside dull yellowish, with the markings faintly darker.

Expanse of wings 14 millim.

Three males from S. Paolo.

Resembles *tenuolalis*, but smaller and much more indistinctly marked.

#### ADELOIDES, gen. nov.

Characterized by the enormous length of the antennæ and the difference in the shape of the fore wings of the sexes. Male with fore wing very narrow; the apex produced; the hind margin very oblique. Female with fore wing broader,

rounded, shaped like *Hoterodes*. Hind wing of male wholly white, triangular, being produced towards the anal angle; of female white, with dark margin, rounded. Antennæ of female setaceous, as long as, or longer than, fore wing; of male more than half as long again. Palpi porrected, drooping, pointed; ocelli present; tongue present; abdomen of male very long.

Type *Adeloides cinerealis* (*Hoterodes*), Moore, P. Z. S. 1867, p. 94.

#### ARCHERNIS, Meyr.

Type *A. octoguttalis*, Feld., Meyr. Tr. E. S. 1887, p. 220.

#### *Archernis pubescens*, sp. n.

Fore wings dull greyish yellow, suffused more or less with fuscous grey; first line brown, close to base, second line much curved outwards in the middle and running in to quite half the length of the wing on the inner margin; three whitish semitransparent spots, one between the two stigmata in the cell, one on the costa on the inner side of the second line, the third in the middle of the disk, on the outer side of the second line, in the angle formed where it turns vertically towards the inner margin; submarginal space generally clearer yellow than the rest of the wing; fringes yellowish. Hind wings pale yellow, with a brown central spot and sinuous central line. Head and thorax suffused with fuscous grey; abdomen yellowish. Underside like upper, but paler.

Expanse of wings 24 millim.

Several of both sexes from N. China and N. India (Dharm-sala).

Nearest to *A. purpurescens*, Moore (*Samea*), from the Andamans.

#### MESOTHYRIS, gen. nov.

Fore wings with costa nearly straight, slightly convex before apex, which is blunt; hind margin rounded. Hind wings rounded. Palpi shortly rostriform; antennæ (in female) filiform; cell in both wings very short, hardly one third of the length of the wing; first median nervule starting immediately before the end of cell, third and radial on a long footstalk, second from the stalk halfway between first and the origin of the other two. This neuration obtains also in the hind wing, where also the two costal branches are on a long stalk; owing to the shortness of the cell the two stig-

mata are very close to the base of the wing; between them is a scaleless white transparent spot.

Type *M. aluensis* (*Botys*), Butler, Ann. & Mag. Nat. Hist. 1887, ii. p. 123.

The male will very likely exhibit further peculiarities.

#### PRODASYCNEMIS, gen. nov.

Fore wings with the costa slightly indented in the centre, especially in male, convex before apex, which is very slightly produced; hind margin obliquely curved. Hind wings rounded. Palpi porrect, long, rostriform; maxillary palpi and tongue distinct; scaling hairy; fringes long. Distinguished by the fore tibiæ of the male, which at their lower end have a large rounded cushion of scales. Wings without markings.

Type *D. inornata*, Butler (*Botys*), Ill. Lep. Het. iii. p. 76, pl. lix. fig. 12.

#### APLOGRAPHE, gen. nov.

Like *Prodasynemis*, but without the tuft of scales on the fore leg; wings smoothly scaled; shorter and broader than in *Prodasynemis*; without markings, except in *bisignata*, which has the stigmata manifest.

Type *A. bisignata*, Butler (*Scopula*), Ill. Lep. Het. vii. p. 98, pl. cxxxv. fig. 11.

#### *Aplographe fulvalis*, sp. n.

Fore wings wholly dull fulvous, the costa just darker. Hind wings slightly paler. Fringes, head, and thorax concolorous. Underside paler, without markings.

Expanse of wings 24 millim.

One female from the Cape of Good Hope.

#### *Aplographe umbrosalis*, sp. n.

Fore wings dull greyish yellow. Hind wings more grey on their basal half. Fringes pale yellowish. Head, thorax, and abdomen concolorous. Underside like upper, but with the base of the fore wings greyer.

Expanse of wings 24 millim.

One female from N. China.

Near *A. inornatalis*, Leech (*Botys*).



## NASCIA, Curt.

Type *N. ciliialis*, Hüb., Curt. Brit. Ent. xii. 599.

*Nascia citrinalis*, sp. n.

Fore wings pale straw-colour, tinged with yellowish towards the hind margin, with a yellowish spot at end of the cell and slightly darker below the costa; fringes silvery white, with a dark leaden-grey base. Hind wings pale straw-colour, tinged with grey, much greyer along the costa; fringes also straw-colour. Head, thorax, and abdomen concolorous. Underside paler, with a brown subcostal streak in the fore wing.

Expanse of wings 28 millim.

One female from Dharmasala.

Distinguished at once by its smoothness and total absence of markings or streaks.

[To be continued.]

XLVI.—Notes on the Palæozoic Bivalved Entomostraca.—  
No. XXX. On Carboniferous Ostracoda from Mongolia\*.  
By T. RUPERT JONES, F.R.S., and JAMES W. KIRKBY,  
Esq.

[Plate XVI.]

THE Ostracoda figured on the accompanying Plate represent the leading forms of a series of specimens brought to Russia from Mongolia, in a small collection of Carboniferous fossils, by the eminent traveller M. G. N. Potanin, and which have been selected and sent to us by M. P. N. Wenjukoff, of the Geological Museum in the Imperial University at St. Petersburg.

Most of the species, if not all, are well known also as British fossils; but we think them of sufficient interest for special notice on account of their coming from so distant a locality. It was previously known that certain of these species enjoyed a great range in time, being common to both

\* No. XXIX. appeared in the Ann. & Mag. Nat. Hist. for October 1890.